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ANALYSIS

OF

FIFTY CASES OF HEPATIC ABSCESS

TREATED IN THE

Seamen's Hospital, Greenwich,

AND THE BRANCH HOSPITAL,

IN THE COURSE OF THE LAST TWENTY-FIVE YEARS,

(1870-1895.)

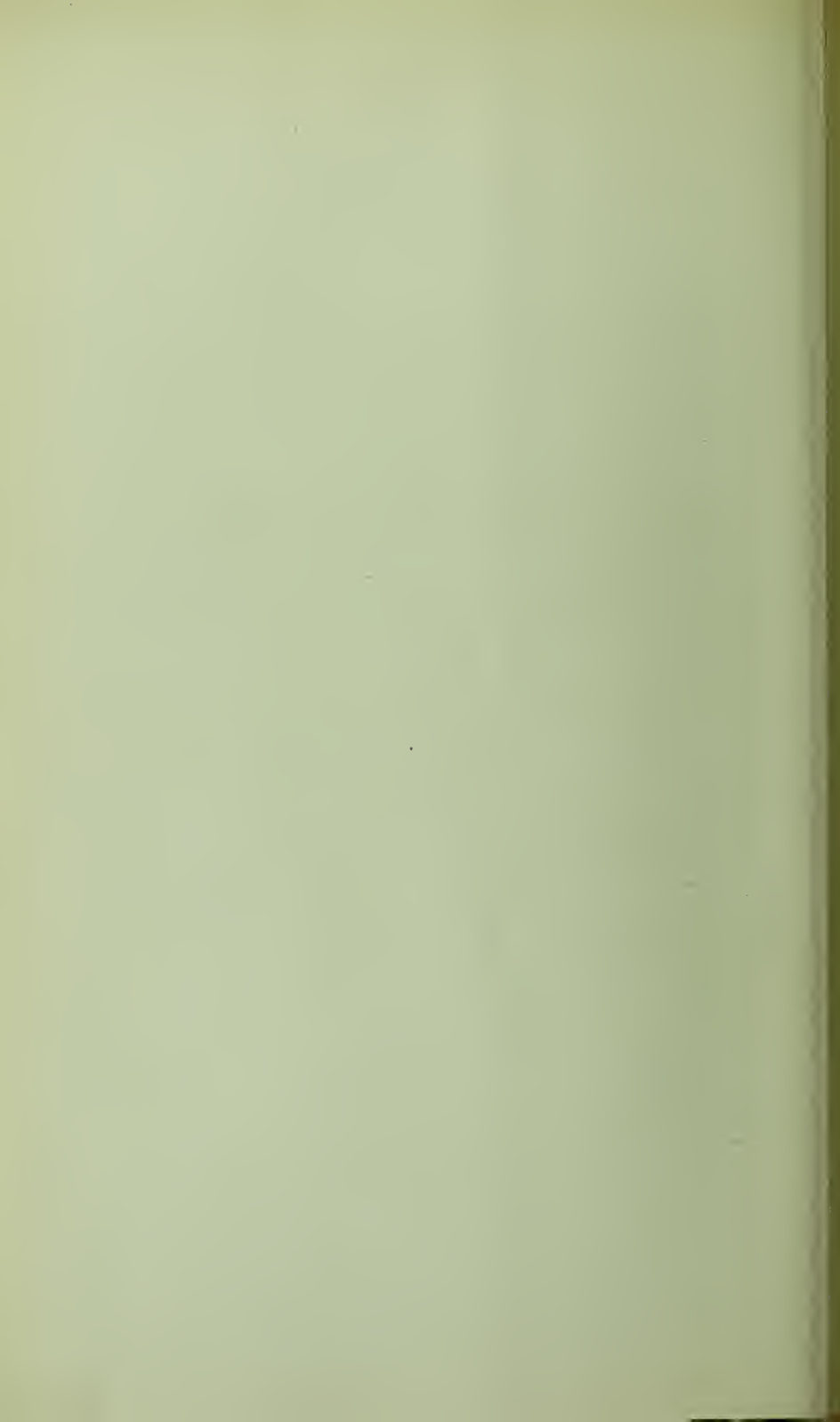


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**Analysis of Fifty Cases of Hepatic Abscess,
Treated in the Seamen's Hospital, Green-
wich, and the Branch Hospital, in the course
of the last Twenty-Five Years.
(1870-1895).**

BY W. JOHNSON SMITH.

Case 1. (Under the care of DR. STEPHEN WARD).*—English ; Able Seaman, aged 25 ; admitted August 30th, died October 4th, 1870. Treated for severe chronic dysentery ; no symptoms indicative of special implication of the liver.

Autopsy : The whole extent of colon much ulcerated, and the mucous membrane of cæcum almost wholly destroyed ; a single abscess containing about 15 ounces of thick inodorous pus, in upper and posterior part of right lobe.

Case 2. (DR. STEPHEN WARD).—Scotch ; Ship's Cook, aged 40 ; last voyage from Cochin China ; admitted October 24th, 1870. Had suffered from frequent attacks of dysentery. Symptoms : sharp darting pain in liver, and severe shoulder-tip pain ; enlargement of liver. Sudden and fatal collapse on December 12th, 1870.

Autopsy : Two dysenteric ulcers in cæcum, a large abscess (single), in the right lobe of the liver, the wall of which was adherent to the right kidney. This abscess had burst into the peritoneal cavity which contained a large quantity of pus.

Case 3. (DR. STEPHEN WARD).—Portuguese ; A.B., aged 40 ; admitted August 28th, 1871. Clear history of dysentery. Pain in both shoulders, enlargement of the liver. Death from exhaustion about a month from date of admission.

Autopsy : Liver enlarged (weighing 6 lbs.) ; the right kidney firmly adherent to the under surface of the right lobe. On separating the kidney from the liver, an abscess was found between these organs. The walls of this abscess were thick, and closely adherent to the under surface of the liver, from which separation could not be effected without laceration of the organ. The abscess, which was quite external to the liver, contained about 4 ounces of thick pus.

Case 4. (DR. STEPHEN WARD).—English ; A.B., aged 56 ; admitted February 5th, 1872. History of dysentery. Tenderness over liver, followed by sudden and profuse hæmoptysis (about a pint of bright red blood), and, subsequently, long continued expectoration of considerable quantity, a purulent sputa with characteristic brick-dust colour. Discharged cured on September 15th.

Case 5. (DR. STEPHEN WARD).†—German ; A.B., aged 34 ; admitted August 14th, 1872. Had sailed to India, China, and Batavia. Five years before admission had an attack of dysentery, which continued

* Cases 1, 2, 3 and 4, reported in Dr. Ward's book on "Some Affections of the Liver," 1872.

† Reported in *Lancet*, January 25th, 1873.

"on and off," for twelve months. Presented symptoms of an hepatic abscess opening into right lung, which subsequently pointed about an inch and a half below and to right side of nipple; well marked shoulder-tip pain. The abscess healed by free incision through the chest wall. Patient discharged cured.

Case 6. (DR. STEPHEN WARD).—English; Second Mate, aged 32; admitted May 10th, 1872. (Reported by Mr. A. Young). History of recent dysentery; last passage from Batavia; enlargement of liver, pain in right hypochondrium and shoulder; from May 22nd to 29th, abundant expectoration of frothy and rust-coloured muco-purulent fluid. Discharged cured.

Case 7. (DR. STEPHEN WARD).—Dane; A.B., aged 34; admitted August 9th, 1872. Had suffered from dysentery, caught in the Mediterranean. Severe stabbing pain over the liver, and shoulder-tip pain on the right side. Prolonged and abundant expectoration of thick "brick-dust" fluid, with fever and evacuation. Discharged cured on December 30th, 1872.

Case 8. (Under the care of DR. CHARLES RALFE).—German; A.B., aged 25; admitted March 15th, 1873. History of dysentery contracted on West Coast of South America, five months before admission; expectoration of "brick-dust" sputum. Death from exhaustion, July 8th, 1873.

Autopsy: A large cavity in right lung, containing 12 ounces of pus. This communicated through the diaphragm with a large cavity in the right lobe of the liver. The liver much enlarged, and together with the contracted spleen, in a condition of amyloid degeneration. Numerous small cavities scattered throughout both lobes of liver. An oval dysenteric ulcer in cæcum. Mucous membrane of colon deeply pigmented.

Case 9.—English; A.B., aged 28; admitted October 7th, 1873. About two months before admission had contracted dysentery at Calcutta. Death from acute peritonitis, on October 19th.

Autopsy: One large abscess in right lobe, a second and smaller abscess in left lobe, which had burst into peritoneal cavity.

Case 10. (DR. REGINALD THOMSON).—English; Ship's Steward, aged 26; admitted October 19th, 1873. Had been treated on three previous occasions for dysentery and hepatitis. Death on November 24th, 1873.

Autopsy: Liver much enlarged and adherent to diaphragm; a large abscess in right lobe, which had burst into lung; both lungs studded by numerous small abscesses; dense and extensive cicatrization of colon near cæcum, causing stricture of intestine.

Case 11. (Under the care of DR. CHARLES RALFE).—Hindoo; aged 28; admitted January 18th, 1874. At time of admission, suffering from dysentery of two weeks' duration. Pain in right shoulder. A large and painful swelling in right hypochondrium, which was punctured twice, and afterwards freely incised and drained. Death from exhaustion about three months after last operation.

Autopsy: A small and contracted cavity found near anterior edge of right lobe; no trace of ulceration in any part of colon.

Case 12. (Under the care of DR. CHARLES RALFE).—*English; fireman; aged 37; admitted August 14th, 1874; died August 20th. History of dysentery.

* Case 12, *Medical Times and Gazette*, 1875, Vol. I., p. 33.

Autopsy: Whole of right lobe infiltrated with pus. Numerous small abscesses. No dysenteric ulcers found in large intestines.

Case 13. (Under the care of MR. W. JOHNSON SMITH).—English; A.B., aged 34; last voyage from Mauritius. Admitted January 23rd, 1875, with necrosis of left tibia, and a discharging sinus. Slitting up of sinus followed by pyæmia; repeated rigors, abscess over shoulder, empyema on right side. Death, March 29th.

Autopsy: An abscess of size of small apple, and containing 4 ounces of pus, near upper surface and posterior margin of right lobe of liver; spleen enlarged; no ulceration of large intestine.

Case 14.—Swede; A.B., aged 56; admitted February 23rd, died March 21st, 1876. Right lobe of liver converted into a large abscess containing 20 ounces of thick brownish pus. Pale yellow spots with congested zones in left lobe. Extensive ulceration and old cicatrices in large intestine.

Case 15.* (Under the care of DR. CHARLES RALFE).—English; A.B., aged 43; admitted May 5th, 1877. A year previously had had an acute attack of dysentery at Calcutta. Much gastric disturbance and occasional vomiting. Absence during stay in hospital of pyrexia and pain in region of the liver. Death, June 6th, from exhaustion.

Autopsy: An abscess containing about 4 ounces of pus in left lobe, opening into stomach at middle of lesser curvature; a large abscess containing 14 ounces of pus in right lobe; several small abscesses scattered throughout liver.

Case 16. (Under the care of DR. HARRY LEACH).—English; A.B., aged 32; admitted July 30th, 1877, died October 15th. When admitted, suffering from severe dysentery.

Autopsy: An abscess containing 15 ounces of pus in right lobe of liver; a smaller abscess, containing 5 ounces of pus in left lobe; the colon studded throughout with ulcers of varying shape and size; the coats of large intestine much thickened.

Case 17.—English; Mate, aged 30; admitted September 23rd, died October 11th, 1878.

Autopsy: A large abscess containing 10 ounces of pus, in back part of left lobe; besides this, three other abscesses in left lobe, and four in right lobe.

Case 18.—English; Sailmaker, aged 47; admitted September 30th, 1880, died October 3rd, 1880.

Autopsy: Liver weighed over 7 lbs.; the left lobe enlarged, but its structure not altered; the whole of right lobe occupied by an enormous abscess; adhesions to diaphragm and transverse colon but no perforation; from the ilio-cæcal valve to end of transverse colon numerous dysenteric ulcers.

Case 19. (Under the care of DR. CURNOW).—Swede; A.B., aged 27; admitted January 6th, 1882, died January 11th, 1882. Dysentery for a year previous to admission.

Autopsy: Liver much enlarged, reaching down to level of umbilicus; the whole of anterior and upper portions of right lobe occupied by a very

* Case 15, *Lancet* 1877, Vol. II., p. 124

large abscess ; several smaller abscesses, each about the size of a walnut, in the lower part of right lobe ; two small abscesses, each about the size of a walnut, in left lobe ; intestines "matted" together by old adhesions ; old dysenteric ulceration of cœcum and colon.

Case 20. (Under the care of DR. CURNOW).—English ; Fireman aged 40 ; admitted January 12th, 1883. Had suffered "on and off" from dysentery, contracted two years previously at Bombay ; marked dullness of lower part of chest and upper part of abdomen on right side, from nipple to level of umbilicus, and behind from the angle of the scapula downwards. Loss of vocal fremitus and of breath sounds over dull area. On January 17th patient coughed up about 2½ pints of a yellowish-brown viscid and inodorous fluid. On the following day he brought up three-quarters of a pint of similar fluid. This continued daily until the 29th, when the amount of expectorated fluid was only two ounces. On the 30th, and following the large quantity, the amount increased, but after this rapidly diminished until February 6th, when it ceased altogether. Patient discharged cured on March 19th.

Case 21.—Irish ; A.B., aged 38 ; admitted January 31st, died April 11th, 1883.

Autopsy : The right pleural cavity filled and distended by a large collection of thick, reddish-yellow pus ; liver much enlarged reaching down to umbilicus ; in the middle of the right half of diaphragm a large opening with ragged edges, by which the right pleural cavity communicated with an abscess cavity in the upper part of the right lobe of the liver.

Case 22.—English ; Donkeyman, aged 35 ; admitted June 15th, died June 17th, 1883.

Autopsy : An abscess of about the size of a hen's egg, near upper surface of right lobe ; several smaller abscesses scattered throughout both lobes ; advanced ulceration of whole extent of large intestine.

Case 23.* (Under the care of DR. R. E. CARRINGTON).—English ; A.B., aged 32 ; admitted August 9th, 1883. History of dysentery contracted at Calcutta, three years before admission : Shoulder and lumbar pains ; excessive tenderness in right hypogastrium, where there was distinct bulging ; a free incision was followed by the discharge of about a pint of thick pus. Recovery.

Case 24. (Under the care of DR. CURNOW).—English ; First Officer, aged 49 ; admitted January 14th, died February 25th, 1884. Admitted with dysentery of 5 months' duration.

Autopsy : Right pleural cavity full of pus ; an opening in diaphragm leading into a large abscess in right lobe of liver, capable of containing at least 8 pints of fluid ; at several parts of large intestine were found ulcers, obviously of recent formation.

Case 25. (Under the care of DR. CURNOW).—Scotch ; A.B., aged 36 ; admitted March 8th, died March 14th, 1884.

Autopsy : An abscess of about the size of the closed fist, near the back part of the upper surface of the right lobe ; this had burst into the right pleural cavity, which was full of pus ; a few recent dysenteric ulcers found in transverse colon.

* Case 23, reported in *Lancet*, 1883, Vol. II., p. 587.

Case 26.—English ; A.B., aged 24 ; admitted July 8th, died July 29th, 1884.

Autopsy : A large abscess on under surface of right lobe, which had burst behind the peritoneum, the pus making its way between this membrane and the cœcum ; the right kidney had been involved, and was broken down, and its substance formed part of the wall of the large retro-peritoneal abscess ; the intestines were quite healthy.

Case 27.* (Under the care of DR. CURNOW).—Portuguese ; A.B., aged 22 ; admitted August 6th, 1884. The evacuations of a dysenteric character, quite fluid, and containing mucus and blood. On August 13th, a free incision made in seventh intercostal space, and exit given to 3 pints of thick brown, sanious, and curdy pus. The diarrhœa persisted, and the patient died from exhaustion on August 20th.

Autopsy : Liver much enlarged ; two large abscess cavities in upper part of right lobe ; one of these, that which had been opened before death, had contracted very much, and was capable of containing not more than a quarter of a pint of fluid ; there were several smaller abscesses in the right lobe, and both lobes were studded by an innumerable quantity of minute yellow deposits ; large intestine much ulcerated, and its coats softened.

Case 28.† (Under the care of DR. CURNOW).—English ; Ordinary Seaman, aged 17 ; admitted July 14th, 1885. History of dysentery contracted 15 months before date of admission. An hepatic abscess opened through eighth intercostal space on July 29th. A second and separate abscess opened in tenth intercostal space, close to outer edge of erector spinæ, on August 25th ; a third abscess opened in fourth intercostal space, on September 19th. Recovery. (Reported by Dr. Booth).

Case 29. (Under the care of DR. HERBERT GRIFFITHS).—Scotch ; A.B., aged 26 ; admitted October 19th, died November 30th, 1886. History of dysentery.

Autopsy : On under surface of right lobe, near posterior margin of the liver was found a single abscess, about the size of a large orange, all other viscera quite healthy ; no intestinal ulceration ; pleurisy on right side.

Case 30. (Under the care of DR. HERBERT GRIFFITHS).—Irish ; A.B., aged 33 ; admitted January 27th, 1887. A large abscess containing about 2 pints of pus, and situated near the back and lower part of the right lobe, was opened by free incision soon after admission. Death February 14th.

Autopsy : The liver studded in both lobes with about a score of abscesses, the largest about the size of a Tangerine orange ; descending colon and rectum much ulcerated.

Case 31. (Under the care of DR. HERBERT GRIFFITHS).—English ; A.B., aged 37 ; admitted June 27th, died July 25th, 1887. Treated for double pneumonia.

Autopsy : Lower half of right lung and base of left presented signs of a low form of pneumonia ; the inflamed lung structure of a dirty grey colour ; liver adherent to surrounding structures ; whole of organ studded by numerous—from 40 to 50—small abscesses, varying much in size, most of them about the size of a walnut, two somewhat larger.

* Case 27, reported by Dr. Carrington in Transactions of the Pathological Society, Vol. XXXVI., p. 224.

† Case 28, reported in *Lancet*, 1886, Vol. I., p. 16.

Case 32. (Under the care of DR. HERBERT GRIFFITHS).—English ; Ship's Carpenter, aged 43 ; admitted July 5th, died August 26th, 1887. At time of admission suffering from dysentery.

Autopsy : Liver very adherent to surrounding structures ; in the right lobe was a large abscess containing about a pint of pus ; the upper part of this abscess bulged up beneath the diaphragm, its wall at the most permanent part being very thin ; acute peritonitis, most intense near right lobe of liver ; the peritoneal cavity contained a large quantity of pus ; ulceration of colon.

Case 33. (Under the care of DR. HERBERT GRIFFITHS).—English ; A.B., aged 20 ; admitted August 31st, died September 25th, 1887.

Autopsy : In right lobe of liver, four abscesses, varying in size from that of a filbert to that of a large walnut ; no ulceration of intestines.

Case 34. (Under the care of DR. HERBERT GRIFFITHS).—English ; Fireman ; aged 30 ; admitted January 25th, 1888. History of dysentery : Contracted 12 months before admission. A large abscess in the liver having been made out by puncture, this was opened on February 3rd by an incision between 11th and 12th ribs, behind posterior axillary line. Death from acute peritonitis and collapse within twelve hours.

Autopsy : Liver much enlarged, upper and posterior part adherent to diaphragm, but at seat of incision made at the operation quite free ; a large abscess of about the size of the foetal head in right lobe ; no other abscess in liver ; a large quantity of pus in abdominal cavity. No trace of ulceration in large intestine.

Case 35.—English ; Fireman, aged 36 ; admitted February 11th, 1888. Treated for cough and expectoration of thick brownish fluid, resembling that of an hepatic abscess. About 12 months previously had been treated in Seamen's Hospital for dysentery and an hepatic abscess which "pointed" in right hypochondrium. This was treated with good results by free incisions, which gave exit to 16 ounces of pus. Discharged March 13th.

Case 36. (Under the care of DR. CURNOW).—English ; A.B., aged 54 ; admitted February 6th, died March 3rd, 1888.

Autopsy : Lower surface of left lobe of liver adherent to colon, an abscess in this portion of the liver had burst into the transverse colon, the orifice of communication being about the size of a threepenny piece. There was also a large abscess in the upper and posterior part of right lobe. cœcum and colon extensively ulcerated (dysentery).

Case 37. (Under the care of DR. J. ANDERSON).—Irish ; Fireman, aged 40 ; admitted July 17th, died July 31st, 1888. Treated for severe dysentery.

Autopsy : Liver studded with numerous small abscesses, varying in size from that of a walnut to that of a Tangerine orange ; advanced and extensive ulceration in the large intestine, especially in the sigmoid flexure.

Case 38. (Under the care of DR. J. ANDERSON).—English ; A.B., aged 27 ; admitted December 23rd, 1889, died April 8th, 1890. History of dysentery : Operation performed shortly before death (resection of portion of 8th rib, and exposure and incision of an abscess in right lobe).

Autopsy: Liver enlarged, and closely adherent to diaphragm. In posterior part of liver, a large abscess surrounded by 12 small purulent deposits, varying in size from that of a bean to that of a small shot. Close to the large abscess was one of the size of a Tangerine orange, which was the collection opened before death. No abscess in left lobe. A few old pigmented spots in cœcum, but no traces of recent ulceration in the large intestine.

Case 39. (Under the care of Dr. J. ANDERSON).—Irish ; A.B., aged 30 ; admitted August 15th, 1891, and treated at first for dysentery. Hepatic tenderness first noted on August 29th. Portion of 7th rib excised, and a large abscess at back part of right lobe opened. No adhesions of liver to abdominal wall. Patient discharged cured.

Case 40. (Under the care of Dr. J. ANDERSON).—Lascar ; aged 30 ; admitted into Branch Hospital, December 15th, 1891, died February 2nd, 1892. No history of dysentery. A large abscess in right lobe of liver had burst at upper surface, and formed a large sub-diaphragmatic abscess. Treated by free resection of portions of 8th and 9th ribs. No autopsy.

Case 41. (Under the care of DR. CURNOW).—English ; A.B., aged 43 ; admitted January 28th, died March 19th, 1892. Diarrhœa 12 months previously, followed by emaciation ; liver enlarged. On February 5th, signs of peritonitis and ascitic fluid in abdomen. Fluid also in right pleural cavity.

Autopsy: Liver enormously enlarged. A very large abscess cavity, occupying nearly the whole of the right lobe, and containing about a quart of pus. A small abscess cavity, about the size of an apple, in the centre of left lobe. The latter had burst into the abdominal cavity, and caused general peritonitis.

Case 42. (Under the care of DR. J. ANDERSON).—Hindoo ; Ship's Cook, aged 23 ; admitted March 7th, died April 19th, 1892. Had suffered from dysentery for about a month, twelve months before admission. Treated for diarrhœa and tenderness over the liver. On March 29th, after the presence of pus had been made out by puncturing, a portion of the 8th rib was removed, and a large abscess in right lobe of liver incised, emptied, and cleansed. No improvement in the general condition of the patient after this operation.

Autopsy: An abscess in the right lobe of about the size of an orange. This, which had been opened before death, communicated with the right kidney, the structure of which was infiltrated with pus, and sloughy. Several other abscesses in liver ; a large cavity, unopened, in right lobe ; another and smaller one also in same lobe ; and a fourth and large collection, involving both lobes ; several minute purulent deposits scattered throughout liver ; no traces of ulceration in intestines.

Case 43. (Under the care of DR. CURNOW).—Dane ; A.B., aged 39 ; admitted October 5th, died November 28th, 1892. Treated at first for malarial fever, the supposed symptoms of which were afterwards found to be due to septicæmic infection. No history of dysentery.

Autopsy: Several small abscesses in the lower lobes of both lungs, liver much enlarged ; at the posterior part of the right lobe, near the diaphragm, was an abscess about the size of an orange. This had a very thick wall,

which was firm and pale. The cavity contained thick curdy pus. Near this abscess the substance of the right lobe had broken down, and this portion of the liver was studded with numerous small irregularly shaped abscesses, containing thick greenish pus.* Reported by Dr. Spencer.

Case 44. (Under the care of DR. PATRICK MANSON).—African ; —, aged 40 ; admitted September 4th, 1893, died October 6th. No history of dysentery or chronic diarrhoea. Symptoms of hepatic abscess. On exposure of right lobe of liver by free incision, an abscess was discovered in left lobe, the surface of which portion was adherent to the abdominal wall. The wound closed by suture, and a second incision made through adhesions into the abscess. Exit given to about 2 ounces of thick pus, in which on microscopical search, specimens of the *amœba coli* could be seen. Death from collapse on the following day. No peritonitis.

Case 45. (Under the care of DR. PATRICK MANSON).—Soldier, who had never been abroad, and who, for many years, had been an intemperate dock labourer, got an attack of hepatitis, apparently from sleeping on the ground. Abscess formed, and was opened by incision. The patient made a good recovery, and was discharged apparently quite well, and with a normal temperature. Eighteen months later he was re-admitted, with hæmoptysis, with signs of pulmonary cavities. He died, and at the post-mortem many cavities were found in both lungs, quite unconnected with the liver. The seat of the incision in the liver was nearly obliterated, but on cross section of the gland an encysted abscess, full of thick yellow pus, and quite shut off from the liver tissue, and manifestly in quite a different situation from the abscess which had been operated on, and recovered from eighteen months before, was found in the upper and back part of the left lobe.

Case 46. (Under the care of DR. CURNOW).—African ; A.B., aged 36 ; admitted January 11th, died January, 20th, 1894. History of dysentery : A large single abscess in right lobe of liver, which had perforated diaphragm, and opened into right pleural cavity. This cavity was filled by a large amount of thick reddish pus, the lung being collapsed, and covered by a thick layer of recent exudation. The pus had also made its way through the intercostal muscles, in the space between the 7th and 8th ribs, and formed a small subcutaneous abscess on the surface of the chest. Liver much enlarged. The sigmoid flexure showed signs of dysenteric ulceration. Some unhealed ulcers were present, together with a few puckered scars. Reported by Dr. Spencer.

Case 47. (Under the care of DR. PATRICK MANSON).—German ; A.B., aged 28 ; admitted into Branch Hospital, March 27th, 1894. A large abscess in right lobe of liver, which, before admission, had burst into right pleural cavity. Urgent dyspnoea was relieved on March 28th, by aspiration of 30 ounces of pus from chest wall. A portion of 7th rib resected on the following day, and several ounces of clear serum were removed, but no pus. After repeated puncture of the liver, 20 ounces of dark red pus were removed from the liver on April 7th, through an opening made one inch and a half below angle of right scapula. On April 10th, 3 pints of similar pus removed by aspiration, introduced at the original wound. The discharge contained numerous specimens of the *amœba coli*. The patient progressed favourably until May 10th, when he had a sudden epileptiform seizure. This was followed on May 13th by two other epileptiform attacks. On May 21st, the patient became comatose. Death on May 22nd.

* Case 43, reported in *Lancet*, 1893, Vol. I., p. 19.

Autopsy: The liver abscess, which was a single one, had contracted to a very small cavity, and was almost quite healed. An abscess containing about 4 ounces of pus, found in left temporo-sphenoidal lobe, together with traces of basal meningitis.

Case 48. (Under the care of DR. J. ANDERSON).—Native of Jersey ; A.B., aged 37 ; admitted December 28th, 1894, died January 1st, 1895. Treated for severe and advanced dysentery of six weeks' duration. Enlargement of liver ; tenderness in right hypochondrium. Death from exhaustion.

Autopsy: The liver much enlarged and rather pale ; on section two, large hepatic abscesses were opened in the right lobe. They were close together, but no communication between the two ; each of which was about the size of a cricket ball, contained a large quantity of sweet yellow thick pus, mottled with reddish-brown patches. The colon presented most extensive ulceration. The presence of hepatic abscess diagnosed during life, but the exhaustion of the patient too advanced to permit of surgical interference. Reported by Dr. Windsor, House Physician.

Case 49. (Under the care of DR. CURNOW).—*Lascar ; aged 42 ; admitted December 22nd, 1894, with effusion into left side of chest. Soon after admission, 16 ounces of straw-coloured fluid removed by aspiration. On January 14th, the presence of a liver abscess having been proved by puncture and aspiration, a portion of the 7th rib was resected, and a large cavity in the right lobe opened and drained. Notwithstanding free discharge of pus from this cavity, the temperature became irregular, and reached higher limits than before. The left pleural cavity was again filled with clear fluid, and soon after the operation on the liver, the patient had a severe attack of dysentery, which lasted about ten days. After rectal injections of quinine, and the administration of ipecacuanha and opium, the temperature came down on February 1st, and the patient made an almost uninterrupted recovery. During the acute stage of this case, the *amœba coli* was found both in the dysenteric stools, and in the fluid discharged from the hepatic abscess. Reported by Dr. Windsor.

Case 50. (Under the care of DR. MANSON, at the Branch Hospital).—Lascar ; aged 36 ; admitted April 29th, 1895, with dysentery and symptoms of hepatic abscess. On May 16th, a portion of 8th rib on right side resected, and abscess on right lobe opened by Dr. Manson's apparatus for puncture and free drainage. Recovery.

Age.

From 10 to 19 years of age (both numbers included) ...				1	2	per cent.
From 20 to 29 years of age ...	...	...	...	13	26	"
From 30 to 39 years of age ...	...	...	...	22	44	"
From 40 to 49 years of age ...	...	...	...	11	22	"
From 50 to 59 years of age ...	...	...	...	3	6	"
				50		

The youngest patient was 17 years of age. Of the three patients between the ages of 50 and 59, one was 54, and two were 56.

* Case 49, *Lancet*, 1895, Vol. I., p. 1109.

Nationality.

English ...	...	...	...	...	...	...	27
Irish ..	...	...	...	...	...	...	4
Scotch ...	...	...	...	...	...	...	3
Hindoos	...	...	...	...	...	...	5
Germans	...	...	...	...	...	...	3
Swedes ...	...	...	...	...	...	...	2
Danes ...	...	...	...	...	...	...	2
Portuguese	...	...	...	...	...	...	2
Africans	...	...	...	...	...	...	2
							50

Occupation and Rating.

Able Seamen ...	...	...	...	...	...	...	30
Lascars ...	...	...	...	...	...	...	5
Firemen ...	...	...	...	...	...	...	6
Ship's Cook	...	...	...	...	...	...	1
Mates ...	...	...	...	...	...	...	2
First Officer	...	...	...	...	...	...	1
Ship's Carpenter	...	...	...	...	...	...	1
Ship's Steward ...	...	...	...	...	...	...	1
Ordinary Seaman	...	...	...	...	...	...	1
Landsman	...	...	...	...	...	...	1
							49

Nature and Extent of the Hepatic Disease.

Numbers 13, 31 and 43, are clearly cases of pure metastatic suppuration, resulting in the first from pyæmic, and in the other two from septicæmic infection. Cases 3 and 26 may be excluded from further consideration, as it seems doubtful from the record of the autopsy in each case whether the abscess found beneath the right lobe had taken origin in the liver or not. The remaining 45 cases are instances of hepatic suppuration, such as is rarely met with, except in those who have visited tropical regions, or suffered from dysentery. These 45 cases include an anomalous instance (No. 45), the nature and causation of which it seems difficult to determine.

Situation and Number of the Abscesses.

- (a). In 13 cases a large single abscess in right lobe, found on *post-mortem* examination.
- (b). In 7 cases, operation on an abscess in the right lobe was followed by recovery.
- (c). In 1 case, successful operation on three abscesses in right lobe.

- (d). In 4 cases, clear symptoms of hepatic abscess, and expectoration of "brick-dust" sputa, were followed by recovery.
- (e). In 5 cases a large abscess in right lobe, with small multiple abscesses scattered throughout both lobes, found after death.
- (f). In 2 cases, two large abscesses in right lobe, and small multiple abscesses in both lobes.
- (g). In 4 cases, two large abscesses, one in right, and one in left lobe.
- (h). In 1 case, two large abscesses, one in right, and one in left lobe, with small, scattered abscesses.
- (i). In 2 cases, two abscesses in right lobe.
- (k). In 1 case, four abscesses in right lobe.
- (l). In 1 case, one large abscess and numerous small abscesses in right lobe, the left lobe remaining free.
- (m). In 1 case, one large abscess and 3 small abscesses in left lobe, and 4 small abscesses in right lobe.
- (n). One case of multiple abscesses, of varying sizes, in both lobes.
- (o). In 1 fatal case, a small abscess in left lobe. No autopsy.

Association with Dysentery.

- (a). Of the 15 cases in which a large single abscess was found in the right lobe on *post-mortem* examination :
 - In 8, well marked dysenteric ulceration was observed in the large intestine ;
 - In 4, there was a distinct clinical history of dysentery, but no *post-mortem* signs of intestinal ulceration ;
 - In 1 case, no clinical history, and no *post-mortem* traces of dysentery ;
 - In 2 cases, no mention of previous dysentery, or of conditions of intestines.
- Thus of 15 cases of single hepatic abscess, intestinal ulceration was found, *post-mortem*, in 8 (53·3 per cent.) ; a clear history of dysentery was made out in 4 others, and a doubtful history in 1. In 2 cases only was there a decided failure with regard to previous dysentery, both of the patients' history and of *post-mortem* appearances.
- If, on the one hand, all the cases be put together in which there was a history of dysentery, and on the other hand the number of cases of clearly proved single abscess be extended by the addition of the cases of recovery (*b* and *d*), in which probably there was not more than one abscess, it will be found that of 25 cases of assumed single abscess, there was a clear history of dysentery in 22 (88 per cent.)

- (b, c and d). In all but one of the instances of recovery after operation, and rupture into the lung, there was a clear history of previous dysentery.
- (e). Of the 5 cases of large abscess in right lobe, with small multiple abscesses scattered throughout the liver, in 4 there were very distinct signs of dysenteric ulceration, and in the remaining case, a clear history of a previous dysenteric attack, but no intestinal ulcers.
- (f). Two large abscesses in right lobe, with smaller abscesses in both lobes. In both cases very severe and extensive ulceration of colon.
- (g). Four cases of two large abscesses, one in right, and one in left lobe. In 2 cases a clear history of dysentery, but no mention of state of intestines; in one, extensive ulceration of colon; in one, a clear history of dysentery, and record in the *post-mortem* notes of severe intestinal ulceration.
- (h). One case of 2 large abscesses, with numerous minute abscesses. History of an acute attack of dysentery contracted at Calcutta. No mention of condition of intestines.
- (i). Two cases of 2 abscesses in right lobe. In one, in which the patient recovered after operation, a history of dysentery; in the second, no history, nor *post-mortem* signs of dysentery.
- (k). Four abscesses in right lobe (1 case). No history of dysentery; no mention of condition of intestines.
- (l). In case 1 (1 large abscess and numerous small abscesses in right lobe), history of dysentery and cicatrices in colon.
- (m). One case of 1 large, and 3 small abscesses in left lobe, and 4 small abscesses in right lobe. No mention of dysentery.
- (n). One case of multiple abscesses, some large, others very small; the large intestine much ulcerated.

In case (o) a clear history of dysentery.

Of 20 cases of multiple hepatic abscess, intestinal ulceration found *post-mortem* in 12, and a previous history of dysenteric attacks noted in 4 others. Total 16 (80 per cent.)

Terminations of Abscesses.

In Fatal Cases (33).—In 4 cases the abscess burst into peritoneal cavity, causing fatal peritonitis. The ruptured abscess was situated in 2 cases in the right, and in 2 cases in the left lobe.

In 2 cases the abscess had perforated the diaphragm and opened into right lung. In 3 cases the abscess had ruptured into right pleural cavity.

In 1 case the stomach, and in another the transverse colon, had been perforated by the abscess, situated in both instances in the left lobe.

In 1 case an abscess in the right lobe had penetrated into the right kidney, the structure of which organ was infiltrated with pus.

In Cases of Recovery (11).—In 4 the abscess had burst into the lung ; in the remaining 8 the cavity had been opened by surgical operation.

Cases Treated by Operation.

CASES OF RECOVERY (1).—German ; aged 34 ; admitted August 14th, 1872. Incision made into right side of chest, about an inch and a half below and to outside of right nipple. Free discharge of thick pus from the incision on the following day, which persisted until December. Patient discharged cured on December 20th, 1872 (case 5).

(2) English ; A.B., aged 32 ; admitted August 9th, 1883. A free incision into swelling in right hypochondrium, and immediate discharge of about a pint of thick pus (case 23).

(3) English ; aged 17 ; admitted July 14th, 1885. An hepatic abscess opened through intercostal space on July 29th. A second and separate abscess opened in 10th intercostal space near edge of erector spinæ, on August 25th. On September 9th a third collection opened in 4th intercostal space. Patient discharged cured on November 26th (case 28).

(4) English ; aged 36 ; admitted February 1st, 1888. A free incision into swelling in right hypochondrium followed by discharge of sixteen ounces of thick pus. Patient left cured on March 13th (case 35).

(5) Irish ; aged 30 ; admitted August 15th, 1891. A portion of seventh rib resected and a large abscess in right lobe opened. Pleural cavity opened ; no adhesions of liver at seat of incision to abdominal wall. Patient discharged cured (case 39).

(6) English ; adult. A liver abscess, pointing in right hypochondrium, opened by incision. Patient discharged cured. Died eighteen months later from phthisis (case 45).

(7) Lascar ; aged 41 ; admitted December 22nd, 1894 ; discharged cured, May 21st, 1895. Treated at first for dysentery, and subsequently for a large abscess in right lobe of liver. Portion of 7th rib resected, and a free opening made into abscess (case 49).

(8) Lascar ; aged 36 ; admitted April 29th, 1895. Portion of 8th rib ; resected, and a large trocar thrust into a large abscess cavity on right lobe. Cavity drained. Recovery (case 50).

FATAL CASES (1).—Lascar ; aged 28 ; admitted January 18th, 1874. A large and painful swelling in right hypochondrium punctured on two occasions, and afterwards freely incised and drained. Death from dysenteric diarrhœa and exhaustion three months after last operation. At the autopsy a single very small and contracted abscess cavity found in right lobe (case 11).

(1) Portuguese ; aged 22 ; admitted August 6th, 1884. On August 13th a free incision made into 7th intercostal space and exit given to three pints of thick pus. Death from diarrhoea and exhaustion on August 20th. At the autopsy, numerous abscesses formed in both lobes of liver (case 27).

(2) Irish ; aged 33 ; admitted January 27th, 1887. Soon after admission a free incision made into a large abscess containing about two pints of pus. Death on February 14th. Numerous abscesses (about a score) scattered throughout the liver (case 30).

(3) English ; aged 30 ; admitted January 25th, 1888. Within twelve hours after incision through last intercostal space into an abscess in right lobe, patient died with symptoms of acute peritonitis. At the autopsy, a very large abscess was found in the right lobe, some of the purulent contents of which had passed into the abdominal cavity (case 34).

(4) English ; aged 27 ; resection of portion of 8th rib and exposure and incision of an abscess in right lobe. Death from exhaustion. At the autopsy a large abscess was found, together with a dozen small purulent deposits varying from the size of a small shot to that of a bean (case 38).

(5) Hindoo ; aged 30. Free resection of portions of 8th and 9th ribs for exposure and incision of an abscess in right lobe of liver, which had previously burst and poured out pus between liver and diaphragm, a large sub-phrenic abscess having thus been formed. Death from exhaustion six weeks after operation. No autopsy (case 40).

(6) Hindoo ; aged 23 ; admitted March 7th, 1892. On March 29th a portion of 8th rib removed and a large abscess in right lobe of liver incised, emptied and drained. No improvement in the general condition of this patient, who died from exhaustion on April 19th. At the autopsy a second large and unopened abscess found in right lobe, and also several smaller collections in different parts of the liver (case 42).

(7) African ; aged 24. A small abscess in left lobe discovered on performing laparotomy. Wound in abdominal wall closed and an incision into abscess through a portion of the liver which had been found adherent to abdominal wall. Death from collapse on the following day. On making a partial autopsy, no traces of recent peritonitis were found (case 44).

(8) German ; aged 28. A case of large abscess in right lobe, perforating diaphragm and forming an empyema on right side. Resection of 7th rib and drainage of pleural cavity. Subsequently, after repeated puncturing of the liver, twenty ounces of dark red pus removed from right lobe by an opening made one inch and a half below angle of scapula. The patient, when almost convalescent, had several epileptiform seizures, and became comatose. At the autopsy were noted signs of basal meningitis, and an abscess in left lobe of brain. The liver abscess, which was a single one, had contracted to a very small cavity, and was almost quite healed (case 47).

Note on the *Amœba Coli*, by Dr. C. W. Windsor, M.A.,

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In this series of cases, the great majority belong to the class of "Tropical Abscess," which, however, as a specific organism has been described, would be more accurately called, "Amœbic Abscess of Liver." The frequent connection of hepatic abscess with dysentery has been completely verified, but now one is able to attribute both affections to one common cause, viz., the *Amœba Dysenteriae* or *Coli*. This organism belongs to the class of amœbæ, and on the warm stage shows definite amœboid movements. It has a clearly defined outline of irregular shape, the commonest form being roughly oval, with a long diameter, more than twice the transverse diameter, the former varying from 50 to 70 per cent., and the latter from 20 to 30 per cent.

In a carefully prepared specimen, a distinction can be made out between the outer and inner layers of the amœba. The outer layer—ecto sarc—is quite clear, and completely invests the inner part, or endo sarc, which is of granular appearance. This is due to a number of vacuoles scattered through the protoplasm; one, as a rule, being conspicuously larger than the rest.

The nucleus is difficult to make out, but sometimes is very plainly seen.

Most amœbæ contain a large number of red blood corpuscles, some retaining their shape and pigment, while others appear as mere colourless discs, overlapping each other. In addition, there are numerous pigment granules scattered about the organism.

Perhaps the most characteristic feature of these amœbæ is the property of throwing out pseudopodia; these are usually short, with blunt, rounded ends, and serve as a means of progression; some, however, are thin and long, and may spread themselves out as to completely encircle the amœbæ. On the warm stage the protoplasm may exhibit definite movements.

The amœbæ can be readily stained with logwood, and mounted as permanent preparations, which process, in many instances, brings out the large oval nucleus clearly and well. But in these mounted preparations, most of the amœbæ are seen to be round in shape, and the pseudopodia are not visible.

The amœbæ are most abundantly found in the earlier specimens of pus withdrawn from the abscess cavity, which has been likened to anchovy sauce in appearance; but in the later stages, when the pus has become yellow, they are not nearly so numerous. The pus from the true Tropical abscess is quite sterile, containing no pyogenic organisms, thus differing markedly from the pus derived from an abscess of pyæmic origin.

In the diseased parts of the large intestine, the amœbæ are most numerous in the opaque white mucus, so characteristic of amœbic dysentery, they have also been demonstrated in the floor of the ulcers, in the deeper layers of the intestinal walls, and rarely in the lymphatic tissue of the gut.

At present, it is impossible to say what is the definite action of the amœba, or by which path it ascends from the intestine to the liver, whether by the lymphatics or by the vascular system ; but it has been supposed that at first numerous small abscesses are formed, which ultimately coalesce to form the large single abscess.

In the tabulated collection of cases the amœba was found in the discharge from the hepatic abscess in Nos. 44 and 47, and in both hepatic discharge and dysenteric stools in Nos. 49 and 50. These are the only instances in which the organism was looked for.



Figure 1 shews three amœbæ, each containing some vacuoles and a few red corpuscles, the nucleus being shown in the right hand specimen. The distinction between the ecto-sarc and endo-sarc is marked in the top left hand amœba.



Figure 2 shews the relative size of the amœbæ to the red corpuscles and a pus corpuscle. The overlapping of the red blood cells is also seen. In the actual specimens, the groundwork is more granular than is represented in these diagrams.

The blocks of these figures, from drawings made by Mr. Hart, to illustrate a paper by Dr. Curnow (Hepatic Abscess followed by amœbic dysentery, *Lancet*, May 4th, 1895), have been kindly supplied by the Editor of the *Lancet*.



